

## Complete Summary

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### TITLE

Diabetes mellitus: percent of patients with diabetes mellitus having glycosylated hemoglobin (HgbA1c) less than 9.0.

### SOURCE(S)

Office of Quality and Performance (10Q). FY2002 VHA performance measurement system. Technical Manual. Washington (DC): Veterans Health Administration (VHA); 2002 Mar 8. 137 p.

## Brief Abstract

### DESCRIPTION

This measure assesses the percentage of patients with Diabetes Mellitus who have an annual glycosylated hemoglobin (HgbA1c) measurement of less than 9.0.

This measure is a component of a composite measure; it can also be used on its own.

### RATIONALE

Diabetes mellitus is one of the most prevalent and costly chronic diseases in our population. Most of the morbidity and mortality of diabetes are due to the complications associated with the disease. Studies show that many, if not all, of the complications of diabetes can be slowed or even prevented by better management on the part of the health care team and the patient. Improved blood glucose control has been unequivocally shown to reduce complications and thereby diminish the heavy personal and financial toll attributed to diabetes.

### PRIMARY CLINICAL COMPONENT

Diabetes mellitus; glycemic control; glycosylated hemoglobin (HgbA1c) level

### DENOMINATOR DESCRIPTION

The number of diabetic patients who are seen at least once by a physician (MD or DO), physician assistant (PA), or nurse practitioner (NP) at a specified clinic during a 12-month period

### NUMERATOR DESCRIPTION

The number of patients from the denominator having glycosylated hemoglobin (HgbA1c) level less than 9.0

### Evidence Supporting the Measure

#### PRIMARY MEASURE DOMAIN

Outcome

#### SECONDARY MEASURE DOMAIN

Not applicable

#### EVIDENCE SUPPORTING THE MEASURE

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

### Evidence Supporting Need for the Measure

#### NEED FOR THE MEASURE

Wide variation in quality for the performance measured

#### EVIDENCE SUPPORTING NEED FOR THE MEASURE

Office of Quality and Performance (10Q). FY2002 VHA performance measurement system. Technical Manual. Washington (DC): Veterans Health Administration (VHA); 2002 Mar 8. 137 p.

### State of Use of the Measure

#### STATE OF USE

Current routine use

#### CURRENT USE

External oversight/Veterans Health Administration  
Internal quality improvement

### Application of Measure in its Current Use

#### CARE SETTING

Ambulatory Care

#### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses  
Physician Assistants  
Physicians

#### LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

#### TARGET POPULATION AGE

Unspecified

#### TARGET POPULATION GENDER

Either male or female

#### STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

### Characteristics of the Primary Clinical Component

#### INCIDENCE/PREVALENCE

Diabetes mellitus is a serious disease that affects over 16 million Americans, and over 150,000 people die each year because of it.

#### EVIDENCE FOR INCIDENCE/PREVALENCE

American Diabetes Association. The diabetes quality improvement project (DQIP) background. [internet]. Alexandria (VA): American Diabetes Association; [cited 2002 Sep 12]. [4 p].

#### ASSOCIATION WITH VULNERABLE POPULATIONS

Individuals of African, Asian, and American Indian descent are particularly vulnerable.

#### EVIDENCE FOR ASSOCIATION WITH VULNERABLE POPULATIONS

American Diabetes Association. The diabetes quality improvement project (DQIP) background. [internet]. Alexandria (VA): American Diabetes Association; [cited 2002 Sep 12]. [4 p].

#### BURDEN OF ILLNESS

Over 150,000 people die each year because of Diabetes Mellitus. Most of the morbidity and mortality of diabetes is due to the complications associated with the disease: blindness, kidney failure, nerve damage, and cardiovascular disease.

Diabetic retinopathy is the leading cause of new blindness in people under 65; diabetic nephropathy is the leading cause of end stage renal disease (kidney failure) in the United states; neuropathy results in the second leading cause of lower extremity amputation with over 50,000 Americans annually losing a limb because of diabetes; diabetic macrovascular disease leads to accelerated coronary heart disease and peripheral vascular disease, both of which result in premature death.

## EVIDENCE FOR BURDEN OF ILLNESS

American Diabetes Association. The diabetes quality improvement project (DQIP) background. [internet]. Alexandria (VA): American Diabetes Association; [cited 2002 Sep 12]. [4 p].

## UTILIZATION

Unspecified

## COSTS

The annual cost of diabetes has been reported to be nearly 100 billion dollars and thus it ranks as one of the deadliest and most costly diseases known to mankind.

## EVIDENCE FOR COSTS

American Diabetes Association. The diabetes quality improvement project (DQIP) background. [internet]. Alexandria (VA): American Diabetes Association; [cited 2002 Sep 12]. [4 p].

# Institute of Medicine National Healthcare Quality Report Categories

## IOM CARE NEED

Living with Illness

## IOM DOMAIN

Effectiveness

# Data Collection for the Measure

## CASE FINDING

Users of care only

## DESCRIPTION OF CASE FINDING

All eligible patients not already reviewed during the 12-month period who visited 1 of a specified list of outpatient clinics

## DENOMINATOR (INDEX) EVENT

Clinical Condition  
Encounter

## DENOMINATOR INCLUSIONS/EXCLUSIONS

### Inclusions

All diabetic patients with either a primary or secondary diagnosis of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) code 250 seen in one of the following 8 clinics:

- Primary Care
- General Medicine
- Cardiology
- Endocrinology/Metabolism
- Diabetes
- Hypertension
- Pulmonary/Chest
- Women's Clinic

All diabetic patients seen in one of the above clinics and seen by a:

- Physician (MD or DO),
- Physician Assistant (PA), or
- Nurse Practitioner (NP)

### Exclusions

All patients whose current year qualifying visit was at a tertiary facility for a specialty consult only (no other primary care or general medicine visit at the tertiary center)

## NUMERATOR INCLUSIONS/EXCLUSIONS

### Inclusions

If more than one glycosylated hemoglobin (HgbA1c) has been done in the past 12 months, the value of the most recent test is used.

### Exclusions

Unspecified

## DENOMINATOR TIME WINDOW

Time window precedes index event

## NUMERATOR TIME WINDOW

Fixed time period

## DATA SOURCE

Administrative and medical records data

#### LEVEL OF DETERMINATION OF QUALITY

Individual Case

#### OUTCOME TYPE

Clinical Outcome

#### PRE-EXISTING INSTRUMENT USED

Unspecified

### Computation of the Measure

#### SCORING

Rate

#### INTERPRETATION OF SCORE

Better quality is associated with a higher score

#### ALLOWANCE FOR PATIENT FACTORS

Unspecified

#### STANDARD OF COMPARISON

Internal time comparison  
Prescriptive standard

#### PRESCRIPTIVE STANDARD

Glycosylated hemoglobin (HgbA1c) less than 9.0 indicator component target:

- Fully successful: 78%
- Exceptional: 82%

#### EVIDENCE FOR PRESCRIPTIVE STANDARD

Office of Quality and Performance (10Q). FY2002 VHA performance measurement system. Technical Manual. Washington (DC): Veterans Health Administration (VHA); 2002 Mar 8. 137 p.

### Evaluation of Measure Properties

#### EXTENT OF MEASURE TESTING

Unspecified

## Identifying Information

### ORIGINAL TITLE

CPG-DM: glycemic control (hemoglobin A1C less than 9.0).

### MEASURE COLLECTION

[Fiscal Year \(FY\) 2002: Veterans Health Administration \(VHA\) Performance Measurement System](#)

### MEASURE SET NAME

[Clinical Practice Guidelines \(FY 2002\)](#)

### COMPOSITE MEASURE NAME

[Diabetes Mellitus](#)

### DEVELOPER

Veterans Health Administration

### ADAPTATION

Measure was not adapted from another source.

### RELEASE DATE

2001 Nov

### REVISION DATE

2002 Mar

### MEASURE STATUS

Please note: This measure has been updated. The National Quality Measures Clearinghouse is working to update this summary.

### SOURCE(S)

Office of Quality and Performance (10Q). FY2002 VHA performance measurement system. Technical Manual. Washington (DC): Veterans Health Administration (VHA); 2002 Mar 8. 137 p.

### MEASURE AVAILABILITY

The individual measure, "CPG-DM: Glycemic Control (Hemoglobin A1C less than 9.0)," is published in "FY 2002 VHA Performance Measurement System: Technical Manual." This document is available from the [Veterans Health Administration Web site](#).

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## NQMC STATUS

This NQMC summary was completed by ECRI on September 27, 2002. The information was verified by the Veterans Health Administration on October 29, 2002.

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